

# **COMPACT LOW COST CURRENT SENSOR AND CURRENT TRANSFORMER CORE HAVING IMPROVED DYNAMIC RANGE**

## **Abstract of Disclosure**

A current sensor and current transformer for monitoring electrical current is provided with a magnetic core having a mixture of magnetic materials to provide a low cost design in a compact configuration with an expanded dynamic range. The mixed material core can be fabricated either from stamped laminations or from coil stock and may include an air gap for activating a magnetic flux sensor. Multiple core configurations, including Figure-O, Figure-C, and Figure-8, having mixed material construction are disclosed and offer advantages over non-mixed material cores where dynamic range and frequency response characteristics are a consideration.

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## Figures

Figure 1: A diagram illustrating the structure of a neural network. It shows a sequence of layers: an input layer, followed by a hidden layer, and an output layer. The layers are connected by arrows indicating the flow of information. The input layer is labeled 'Input', the hidden layer is labeled 'Hidden', and the output layer is labeled 'Output'. The diagram also shows a feedback loop from the output layer back to the input layer, labeled 'Feedback'.